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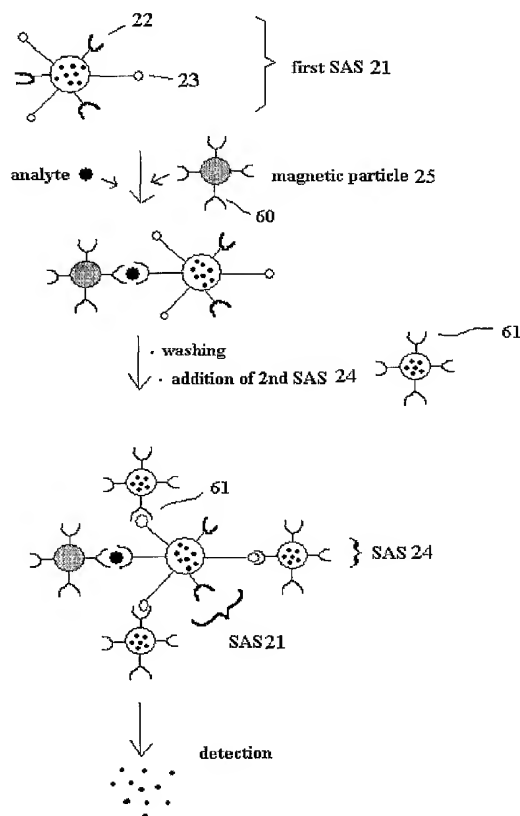
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(54) Title: SIGNAL AMPLIFICATION METHODS FOR ANALYTE DETECTION



(57) Abstract: The methods and compositions provided herein are based on use of a signal amplification system (SAS) that includes a carrier, typically a particle containing an analyte binding moiety, and multiple copies of a signaling moiety. The signaling moieties may be bound to the same carrier as the analyte binding moiety, or bound to different carriers. In various embodiments, the signaling moiety is physically released from its carrier after the carrier has been bound to the analyte and detected after the release. In various embodiments, the total amount of signal is amplified by releasing multiple species of binding partners from a first carrier and binding the released binding partners to multiple second carriers, each containing multiple signaling moieties. Also provided are carriers that have signalling moieties encapsulated therein or releasably attached thereto, or attached to an inner position of the carrier with respect to the analyte binding moiety, that is attached to an outer position of the carrier.



WO 2005/062982 A2



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